

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
OFFICE OF AIR QUALITY
and Gary Air and Land Pollution Control**

**Bucko Construction Company, Inc.
890 Chase Street
Gary, Indiana 46404**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 089-11341-00103	
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: October 11, 2001 Expiration Date: October 11, 2006

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and Gary Air and Land Pollution Control. The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary hot mix batch asphalt production source.

Authorized Individual:	Robert J. Bucko, Jr.
Source Address:	890 Chase Street, Gary, Indiana 46404
Mailing Address:	890 Chase Street, Gary, Indiana 46404
SIC Code:	2951
General Source Phone Number:	219-949-0331
Source Location Status:	Lake County
County Status:	Nonattainment for PM ₁₀ , NO ₂ , SO ₂ and Ozone Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) dryer, known as EU#1, equipped with a cyclone and baghouse connected in series for particulate matter control, exhausted to Stack #1, installed in 1967, baghouse replaced in 1995, capacity: 275 tons per hour.
- (b) One (1) natural gas-fired dryer burner with No. 2, No. 4, and No. 5 fuel oil for backup, known as EU#1, equipped with a cyclone and baghouse connected in series for particulate matter control, exhausted to Stack #1, installed in 1967, burner and baghouse replaced in 1995, rated at 150 million British thermal units per hour.
- (c) One (1) batch mixer, known as EU#1, equipped with a cyclone and baghouse connected in series for particulate matter control, exhausted to Stack #1, installed in 1967, baghouse replaced in 1995, capacity: 6,500 pounds per batch.
- (d) Four (4) cold aggregate bins, installed in 1967, capacity: 60 tons of aggregate per bin each.
- (e) One (1) natural gas-fired hot oil heater, installed in 1990, rated at 1.7 million British thermal units per hour.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.

- (b) Combustion source flame safety purging on startup.
- (c) The following VOC and HAP storage containers: vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (d) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (e) Closed loop heating and cooling systems.
- (f) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (g) On-site fire and emergency response training approved by the department.
- (h) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (i) Three (3) storage tanks, installed in 1967, capacity: 30,000, 20,000, and 20,000 gallons of asphaltic cement, respectively.
- (j) One (1) storage tank, installed in 1967, capacity: 15,000 gallons of fuel oil.
- (k) One (1) product storage silo, capacity: 100 tons of hot mix asphalt.
- (l) Reclaimed asphalt pavement crushing operation, maximum capacity: 100 tons per hour.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions

- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, and Gary Air and Land Pollution Control shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION B

GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

(a) Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM and Gary Air and Land Pollution Control, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

(b) Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by Gary Air and Land Pollution Control.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall furnish to IDEM, OAQ, and Gary Air and Land Pollution Control y within a reasonable time, any information that IDEM, OAQ, and Gary Air and Land Pollution Control may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, and Gary Air and Land Pollution Control copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]
- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ and Gary Air and Land Pollution Control may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each

submittal requiring certification.

- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Gary Air and Land Pollution Control on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, and Gary Air and Land Pollution Control may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

The PMP extension notification does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, and Gary Air and Land Pollution Control upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and Gary Air and Land Pollution Control. IDEM, OAQ, and Gary Air and Land Pollution Control may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or Gary Air and Land Pollution Control makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or Gary Air and Land Pollution Control within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ or the IDEM Northwest Regional Office and the Gary Air and Land Pollution Control within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

or

Telephone No.: 219-881-6712 (Northwest Regional Office)
Facsimile No.: 219-881-6745 (Northwest Regional Office)

and

Telephone No. 219-882-3007 (Gary Air and Land Pollution Control)
Facsimile No.: 219-882-3012 (Gary Air and Land Pollution Control)

Failure to notify IDEM, OAQ or the IDEM Northwest Regional Office, and Gary Air and Land Pollution Control by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ and Gary Air and Land Pollution Control, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ or the IDEM Northwest Regional Office and Gary Air and Land Pollution Control, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.

The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)]
[326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, or Gary Air and Land Pollution Control determines any of the following:
- (1) That this permit contains a material mistake.

- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ or Gary Air and Land Pollution Control, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ or Gary Air and Land Pollution Control, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ or Gary Air and Land Pollution Control, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and Gary Air and Land Pollution Control and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
 - (1) A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Gary Air and Land Pollution Control on or before the date it is due.
 - (2) If IDEM, OAQ and Gary Air and Land Pollution Control upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the

expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ and Gary Air and Land Pollution Control takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ and Gary Air and Land Pollution Control, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management

Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, and Gary Air and Land Pollution Control, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, and Gary Air and Land Pollution Control, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8] [326 IAC 2-3]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit volatile organic compounds (VOC) from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-3 (Emission Offset) not applicable;
- (2) The potential to emit any regulated pollutant from the entire source, except VOC shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period;
- (3) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (4) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) The potential to emit nitrogen oxides (NO_x) from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Fugitive Dust Emissions [326 IAC 6-1-11.1]

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

- (a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
- (b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
- (c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).
- (d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.
- (e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (f) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.
- (g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
- (h) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
- (i) The PM₁₀ emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (j) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (k) Any facility or operation not specified in 326 IAC 6-1-11.1(d) shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on September 15, 1999.

C.7 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on September 15, 1999. The plan consists of spraying water on stockpiles and roads on an as-needed basis.

C.8 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.9 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

C.10 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.11 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ and Gary Air and Land Pollution Control not later than forty-five (45) days after the completion of the

testing. An extension may be granted by IDEM, OAQ, and Gary Air and Land Pollution Control, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.12 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.13 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.14 Maintenance of Emission Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]

(a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no often less than once an hour until such time as the continuous monitor is back in operation.

- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.15 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

C.16 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a flow rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.17 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.18 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:

- (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ and Gary Air and Land Pollution Control upon request and shall be subject to review and approval by IDEM, OAQ, and Gary Air and Land Pollution Control. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps may constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required

monitoring.

- (f) At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.20 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6. This annual statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year). The annual statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

The emission statement does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other

means, it shall be considered timely if received by IDEM, OAQ, and Gary Air and Land Pollution Control on or before the date it is due.

C.21 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or Gary Air and Land Pollution Control makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or Gary Air and Land Pollution Control within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.22 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Gary Air and Land Pollution Control on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.23 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Hot Mix Asphalt Production

- (a) One (1) dryer, known as EU#1, equipped with a cyclone and baghouse connected in series for particulate matter control, exhausted to Stack #1, installed in 1967, baghouse replaced in 1995, capacity: 275 tons per hour.
- (b) One (1) natural gas-fired dryer burner with No. 2, No. 4, and No. 5 fuel oil for backup, known as EU#1, equipped with a cyclone and baghouse connected in series for particulate matter control, exhausted to Stack #1, installed in 1967, burner and baghouse replaced in 1995, rated at 150 million British thermal units per hour.
- (c) One (1) batch mixer, known as EU#1, equipped with a cyclone and baghouse connected in series for particulate matter control, exhausted to Stack #1, installed in 1967, baghouse replaced in 1995, capacity: 6,500 pounds per batch.
- (d) Four (4) cold aggregate bins, installed in 1967, capacity: 60 tons of aggregate per bin each.
- (e) One (1) natural gas-fired hot oil heater, installed in 1990, rated at 1.7 million British thermal units per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Emission Offset Minor Limit [326 IAC 2-3]

- (a) The total input of No. 5 fuel oil to the aggregate dryer/burner shall be limited to 1,032,800 gallons per twelve (12) consecutive month period, rolled monthly. This fuel oil limit is equivalent to less than 24.27 tons per year of NO_x. Compliance with this limit will assure that the NO_x emissions from the entire source shall remain less than twenty-five (25) tons per year and that the requirements of 326 IAC are not applicable.
- (b) For purpose of determining compliance based on NO_x emissions, each 1 million cubic feet of natural gas burned is equivalent to 4,042.553 gallons of No. 5 fuel. Each gallon of No. 2 or No. 4 fuel oil burned is equivalent to 0.510638 gallons of No. 5 fuel oil.

D.1.2 Sulfur Dioxide Emission Limitations [326 IAC 7-4-1.1]

Pursuant to 326 IAC 7-4-1.1(c)(4), sulfur dioxide emissions from the dryer/burner shall be limited to 0.07 pounds per ton of asphalt produced, equivalent to sulfur contents that shall not exceed 0.125%S, 0.128%S and 0.123%S for Nos. 2, 4 and 5 fuel oil, respectively.

D.1.3 Sulfur Dioxide [326 IAC 7-1.1]

- (a) Sulfur dioxide emissions from the dryer/burner shall be limited to 0.5 pounds per million British thermal units heat input, equivalent to the sulfur contents of the Nos. 2 or 4 distillate oil of 0.5 percent by weight.
- (b) Sulfur dioxide emissions from the dryer/burner shall be limited to 1.6 pounds per million British thermal units heat input, equivalent to the sulfur contents of the No. 5 distillate oil of 1.5 percent by weight.

D.1.4 PM₁₀ Limitation [326 IAC 6-1-10.1] [326 IAC 2-8-4]

Pursuant to 326 IAC 6-1-10.1, the PM₁₀ emissions from the EU#1 exhausting through Stack #1 shall not exceed both 0.017 pounds per ton of asphalt produced, equivalent to 4.68 pounds of PM₁₀ per hour, and 4.44 pounds of PM₁₀ per hour. Compliance with these limits will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

D.1.5 Particulate Matter [326 IAC 6-1-2(c)]

- (a) Pursuant to 326 IAC 6-1-2(c), the PM emission rate from EU#1 exhausting through Stack #1 shall not exceed 0.10 grains per dry standard cubic foot, equivalent to 37.0 pounds per hour at a flow rate of 43,227 dry standard cubic feet per minute.
- (b) The 43,227 dry standard cubic feet per minute flow rate is equivalent to 82,892 actual cubic feet per minute at a temperature of 350 degrees Fahrenheit and a moisture content of 20.0 percent.

D.1.6 Volatile Organic Compounds (VOC) [326 IAC 8-5-2]

- (a) Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: asphalt paving), the owner or operator shall: not cause or allow the use of asphalt emulsion containing more than seven (7.0) percent oil distillate by volume of emulsion for any paving application except the following purposes:
 - (1) penetrating prime coating
 - (2) stockpile storage
 - (3) application during the months of November, December, January, February and March
- (b) No oil distillate cutback asphalt shall be used at this plant without prior approval from OAQ.

D.1.7 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for EU#1 and any control devices.

Compliance Determination Requirements

D.1.8 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input for Nos. 2 or 4 fuel oil and 1.6 pounds per million Btu heat input for No. 5 fuel oil and the sulfur contents specified in Conditions D.1.2 and D.1.3 by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 150 million British thermal units per hour dryer/burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.1.9 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

During the period between 6 and 12 months after issuance of this permit, in order to demonstrate compliance with Conditions D.1.4 and D.1.5, the Permittee shall perform PM and PM₁₀ testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.10 Visible Emissions Notations

- (a) Visible emission notations of the mixer/dryer stack #1 exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.1.11 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the EU#1, at least once per shift when the mixer/dryer is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 5.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and the Gary Air and Land Pollution Control shall be calibrated at least once every six (6) months.

D.1.12 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the asphalt production operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.1.13 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.1.14 Cyclone Inspections

An inspection shall be performed each calendar quarter of all cyclones controlling the asphalt production operation when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

D.1.15 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.16 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records of the amount and type of fuel combusted in the dryer EU#1.
- (b) To document compliance with Condition D.1.10, the Permittee shall maintain records of visible emission notations of the mixer/dryer stack #1 exhaust once per shift.
- (c) To document compliance with Condition D.1.11, the Permittee shall maintain the following:
 - (1) Records of the following operational parameters during normal operation when venting to the atmosphere once per shift:

- (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle operation.
- (2) Documentation of the dates vents are redirected.
- (d) To document compliance with Conditions D.1.12 and D.1.14, the Permittee shall maintain records of the results of the inspections required under Conditions D.1.12 and D.1.14 and the dates the vents are redirected.
- (e) To document compliance with Conditions D.1.1, D.1.2 and D.1.3, the Permittee shall maintain records in accordance with (1) through (6) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel usage since last compliance determination period and equivalent sulfur dioxide emissions;
 - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications.
 - (5) The name of the fuel supplier; and
 - (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.
- The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.17 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (d) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (i) Three (3) storage tanks, installed in 1967, capacity: 30,000, 20,000, and 20,000 gallons of asphaltic cement, respectively.
- (j) One (1) storage tank, installed in 1967, capacity: 15,000 gallons of fuel oil.
- (k) One (1) product storage silo, capacity: 100 tons of hot mix asphalt.
- (l) Reclaimed asphalt pavement crushing operation, maximum capacity: 100 tons per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the crushing, screening and conveying operations associated with Reclaimed asphalt pavement (RAP) described in this section except when otherwise specified in 40 CFR 60 Subpart OOO.

D.2.2 Particulate Matter (PM) [326 IAC 6-1]

Pursuant to 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the brazing equipment, cutting torches, soldering equipment, welding equipment as well as the storage silo and the reclaimed asphalt pavement crushing operation shall be limited to 0.03 grain per dry standard cubic foot.

D.2.3 Opacity [40 CFR 60.670 through 60.676, Subpart OOO] [326 IAC 12]

Pursuant to the New Source Performance Standards, 326 IAC 12, 40 CFR 60.670 through 60.676, Subpart OOO:

- (a) The reclaimed asphalt pavement (RAP) crushing operation is limited to fifteen percent (15%) opacity or less in twenty-four (24) consecutive readings in a six (6) minute period, and
- (b) The screening and conveying operations when using RAP are limited to ten percent (10%) opacity or less in twenty-four (24) consecutive readings in a six (6) minute period.
- (c) Compliance shall be determined by 40CFR 60, Appendix A, Method 9.

D.2.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the RAP crushing, screening and conveying operations and their control device.

Compliance Determination Requirements

D.2.5 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11] [NSPS Subpart OOO]

During the period between 6 and 12 months after issuance of this permit, the Permittee shall perform opacity testing for the crushing, screening and conveying operations when utilizing RAP. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if these facilities are in compliance.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.6 Volatile Organic Liquid Storage Vessels [326 IAC 8-9]

Pursuant 326 IAC 8-9-1(b), the four (4) storage tanks with capacities of less than 39,000 gallons each, are subject to the record keeping and reporting requirements of 326 IAC 8-9-6(a) and (b) as follows:

- (a) The owner or operator of each vessel shall maintain the records required by (b) for the life of the vessel.
- (b) The owner or operator of each vessel shall maintain a record and submit to the department a report containing the following information for each vessel:
 - (1) The vessel identification number.
 - (2) The vessel dimensions.
 - (3) The vessel capacity.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

and Gary Air and Land Pollution Control

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Bucko Construction Company, Inc.
Source Address: 890 Chase Street, Gary, Indiana 46404
Mailing Address: 890 Chase Street, Gary, Indiana 46404
FESOP No.: F 089-11341-00103

**This certification shall be included when submitting monitoring, testing reports/results
or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

and Gary Air and Land Pollution Control

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Bucko Construction Company, Inc.
Source Address: 890 Chase Street, Gary, Indiana 46404
Mailing Address: 890 Chase Street, Gary, Indiana 46404
FESOP No.: F 089-11341-00103

This form consists of 2 pages

Page 1 of 2

9 This is an emergency as defined in 326 IAC 2-7-1(12)
 CThe Permittee must notify the Office of Air Quality (OAQ), within four **(4)** business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 CThe Permittee must submit notice in writing or by facsimile within two **(2)** days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

and Gary Air and Land Pollution Control

FESOP Quarterly Report

Source Name: Bucko Construction Company, Inc.
Source Address: 890 Chase Street, Gary, Indiana 46404
Mailing Address: 890 Chase Street, Gary, Indiana 46404
FESOP No.: F 089-11341-00103
Facility: Dryer/Burner
Parameter: No. 5 Fuel Oil Usage
Limit: 1,032,800 gallons per twelve (12) consecutive month period, rolled monthly, equivalent to less than 24.27 tons per year of NO_x. For purpose of determining compliance, each 1 million cubic feet of natural gas burned is equivalent to 4,042.553 gallons of No. 5 fuel and each gallon of No. 2 or No. 4 fuel oil burned is equivalent to 0.510638 gallons of No. 5 fuel.

YEAR: _____

Month	No. 5 Fuel Oil or Equivalent	No. 5 Fuel Oil or Equivalent	No. 5 Fuel Oil or Equivalent
	Gallons This Month	Gallons Previous 11 Months	Gallons 12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

and Gary Air and Land Pollution Control

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Bucko Construction Company, Inc.
Source Address: 890 Chase Street, Gary, Indiana 46404
Mailing Address: 890 Chase Street, Gary, Indiana 46404
FESOP No.: F 089-11341-00103

Months: _____ **to** _____ **Year:** _____

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for Federally Enforceable State Operating Permit (FESOP)

Source Name:	Bucko Construction Company, Inc.
Source Location:	890 Chase Street, Gary, Indiana 46404
County:	Lake
FESOP:	F 089-11341-00103
SIC Code:	2951
Permit Reviewer:	Frank P. Castelli

On March 21, 2001, the Office of Air Quality (OAQ) had a notice published in the Post Tribune in Merrillville and the Times in Munster, Indiana, stating that Bucko Construction Company, Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) to operate a stationary hot mix batch asphalt production source with a cyclone and baghouse connected in series for particulate matter control. The notice also stated that OAQ proposed to issue a FESOP for this operation and provided information on how the public could review the proposed FESOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP should be issued as proposed.

On April 4, 2001, George Kolettis, Director of the City of Gary Department of Environmental Affairs, provided the following comment:

Comment 1:

We met with Mr. Robert Bucko regarding the FESOP for Bucko Construction Company at 890 Chase Street in Gary, Indiana. At the meeting held in Mayor Scott King's office on March 29, 2001, Mr. Bucko stated that he had to use the address where the plant is presently located to apply for this permit.

However, according to Mr. Bucko, he is not - I reiterate - not going to operate this plant at this address. He plans to move it somewhere in South Lake County where he has purchased property.

Response 1

As a result of this comment, IDEM, OAQ sent a letter on April 23, 2001 to Bucko Construction Company, Inc. requesting the proposed new location for this source.

On May 16, 2001, Steven A. Johnson, attorney for Bucko Construction Company, Inc., submitted the following response to the request for the new source location.

Apparently, there was a miscommunication between George Kolettis and Mr. Bucko, wherein Mr. Kolettis inferred that the asphalt plant in question would be moved from 890 Chase Street, Gary, Indiana, to another location within Lake County, Indiana.

Bucko Construction Company, Inc. has neither any plans nor any intention to move the asphalt plant.

We apologize for any inconvenience or miscommunication that may have occurred, which led Mr. Kolettis to this erroneous conclusion.

In addition on May 23, 2001, Steven Niehoff of Weaver, Boos & Gordon, consultants to Bucko Construction Company, Inc. submitted the following comments also in response to the request for the new source location.

While it is possible that the asphalt plant may be moved at some point, it is expected to remain at 890 Chase Street for the foreseeable future. In the event that the source is ultimately moved, the applicable permit modification applications will be submitted to IDEM.

As a result of the Bucko's responses, it is now understood that this source is not currently planning to relocate the source of the proposed permit. The proposed permit was written to include all rules applicable to this location for a stationary asphalt production source.

On April 27, 2001, George Kolettis, Director of the City of Gary Department of Environmental Affairs, provided the following comment by telephone on the proposed FESOP:

Comment 2:

Mr. Kolettis voiced the concerns of the public regarding the proposed operation of the asphalt production source at its current location in view of the fact that the source is located directly across the street from a residential apartment complex. He stated that the plant is currently not operating, has not operated for years and is partially dismantled, but could be reassembled to operate in the future.

Response 2:

The proposed FESOP contains compliance monitoring conditions to insure that the plant will comply with all applicable air pollution regulations. Stack testing of the source is required by the proposed permit, if the plant is operated. If the plant operates at the current location, inspections of the source will be done by IDEM, OAQ to assure compliance with all applicable rules.

If the public has complaints regarding the operation of the asphalt production source, the public should contact the inspector for IDEM, OAQ at 219-881-6740 and/or the City of Gary, Department of Environmental Affairs at 219-882-3000.

Upon further review, the OAQ has decided to make the following changes to the FESOP: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

Change 1:

In Section A, the County Status has had the reference to nonattainment for NO₂ has been deleted since the County is nonattainment for ozone which was already stated as follows:

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary hot mix batch asphalt production source.

County Status:	Nonattainment for PM ₁₀ , NO₂ , SO ₂ and Ozone
	Attainment for all other criteria pollutants

Change 2:

In Condition A.2(b), wording has been added to clarify that the burner and baghouse were replaced in 1995 as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (b) One (1) natural gas-fired dryer burner with No. 2, No. 4, and No. 5 fuel oil for backup, known as EU#1, equipped with a cyclone and baghouse connected in series for particulate matter control, exhausted to Stack #1, installed in 1967, **burner and baghouse** replaced in 1995, rated at 150 million British thermal units per hour.

Change 3:

In Conditions A.3 (k) and (l), the type of product has been added to the description in (k) and the word "capacity" has been added in (l) as follows:

- (k) One (1) product storage silo, capacity: 100 tons **of hot mix asphalt**.
- (l) Reclaimed asphalt pavement crushing operation, maximum **capacity**: 100 tons per hour.

Change 4:

Condition B.10 (Compliance with Permit Conditions) has been revised to clarify that noncompliance with any requirement of this permit may result in an enforcement action against the Permittee, an action to modify, revoke, reissue or terminate the source's permit, and/or a denial of the Permittee's application to renew the permit as follows:

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, ~~except those specifically designated as not federally enforceable,~~ is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

Change 5:

Condition B.11 (a) has been corrected as follows:

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Change 6:

Condition B.13(a) has had the reference to the PMP deleted item (a) is referencing only the PMP extension, whereas item (c) references that the PMP does not require the certification by the "authorized individual."

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

The ~~PMP and the~~ PMP extension notification ~~does~~ not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, and Gary Air and Land Pollution Control upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and Gary Air and Land Pollution Control. IDEM, OAQ, and Gary

Air and Land Pollution Control may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Change 7:

In Condition B.14 (Emergency Provisions) wording has been added to clarify that the Permittee should notify either IDEM, OAQ or the Northwest Regional Office and the Gary Air and Land Pollution Control local agency as shown in items (b)(4) and (f) as follows:

B.14 Emergency Provisions [326 IAC 2-8-12]

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ **or the IDEM Northwest Regional Office and the Gary Air and Land Pollution Control** ~~and the IDEM Northwest regional office~~, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

or

Telephone No.: 219-881-6712 (Northwest Regional Office)
Facsimile No.: 219-881-6745 (Northwest Regional Office)

and

Telephone No. 219-882-3007 (Gary Air and Land Pollution Control)
Facsimile No.: 219-882-3012 (Gary Air and Land Pollution Control)

~~Telephone No.: 219-881-6712 (Northwest Regional Office)~~
~~Facsimile No.: 219-881-6745 (Northwest Regional Office)~~

Failure to notify IDEM, OAQ **or the IDEM Northwest Regional Office, and Gary Air and Land Pollution Control** ~~and the IDEM Northwest Regional Office~~, by

telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Air and Land Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) IDEM, OAQ and Gary Air and Land Pollution Control, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ **or the IDEM Northwest Regional Office** and Gary Air and Land Pollution Control, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

- (g) Operations may continue during an emergency only if the following conditions are met:
- (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.
- Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

Change 8:

Condition B.19 (a)(5) has been reworded and Condition B.19 (b) has had the cite changed to 326 IAC 2-1.1-1(1) as follows:

B.19 Operational Flexibility [326 IAC 2-8-15]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:
- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, ~~to~~ **for** public review.
- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:
- (1) A brief description of the change within the source;
 - (2) The date on which the change will occur;
 - (3) Any change in emissions; and
 - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Change 9:

Condition B.20 has had the word "by the requirements of" added as follows:

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed **by the requirements of** 326 IAC 2 and 326 IAC 2-8-11.1.

Change 10:

In Condition B.21, a comma has been inserted between Gary Air and Land Pollution Control and U.S. EPA as follows:.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, and Gary Air and Land Pollution Control, U.S. EPA, or an authorized representative to perform the following:

Change 11:

Since no fees are currently collected by the local agency, Condition B.23(a) has been revised as follows:

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

(a) The Permittee shall pay annual fees to IDEM, OAQ, ~~and Gary Air and Land Pollution Control~~, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

Change 12:

For clarification that the entire source NO_x emission limit pursuant to 326 IAC 2-8 is one hundred (100) tons per year and that the twenty-five (25) tons per year NO_x limit is necessary to make 326 IAC 2-3 not applicable the wording of Condition C.1 has been changed as follows:

C.1 Overall Source Limit [326 IAC 2-8] [326 IAC 2-3]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit ~~nitrogen oxides (NO_x)~~ and volatile organic compounds (VOC) from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period. This limitation shall also ~~make satisfy~~ the requirements of 326 IAC 2-3 (Emission Offset) **not applicable**;
- (2) The potential to emit any regulated pollutant from the entire source, except VOC ~~and NO_x~~, shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period;

- (3) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (4) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) **The potential to emit nitrogen oxides (NO_x) from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-3 (Emission Offset) not applicable.**
- (cb) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.
- (de) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

Change 13:

Wording has been added to Condition D.1.1(a) to explain why NO_x is limited to less than twenty five (25) tons per year as follows:

D.1.1 Emission Offset Minor Limit [326 IAC 2-3]

- (a) The total input of No. 5 fuel oil to the aggregate dryer/burner shall be limited to 1,032,800 gallons per twelve (12) consecutive month period, rolled monthly. This fuel oil limit is equivalent to less than 24.27 tons per year of NO_x. Compliance with this limit will assure that the NO_x emissions from the entire source shall remain less than twenty-five (25) tons per year **and that the requirements of 326 IAC 2-3 are not applicable.**

Change 14:

Condition D.1.3 has been reworded as follows:

D.1.3 Sulfur Dioxide [326 IAC 7-1.1]

- (a) Sulfur dioxide emissions from the dryer/burner shall be limited to 0.5 pounds per million British thermal units heat input, equivalent to **the a** sulfur contents of the Nos. 2 or 4 distillate oil of 0.5 percent by weight.
- (b) Sulfur dioxide emissions from the dryer/burner shall be limited to 1.6 pounds per million British thermal units heat input, equivalent to **the a** sulfur contents of the No. 5 distillate oil of 1.5 percent by weight.

Change 15:

Condition D.1.4 has been changed to indicate that EU#1 which exhausts through Stack #1 are subject to the emission limitations as follows:

D.1.4 PM₁₀ Limitation [326 IAC 6-1-10.1] [326 IAC 2-8-4]

Pursuant to 326 IAC 6-1-10.1, the PM₁₀ emissions from the EU#1 **exhausting through Stack #1** shall not exceed both 0.017 pounds per ton of asphalt produced, equivalent to 4.68 pounds of PM₁₀

per hour, and 4.44 pounds of PM₁₀ per hour. Compliance with these limits will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

Change 16:

Condition D.1.8 has been clarified by adding the words “fuel oil” and correcting the cross-referenced conditions as follows:

D.1.8 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input for Nos. 2 or 4 **fuel oil** and 1.6 pounds per million Btu heat input for Nos. 5 **fuel oil** and the sulfur contents specified in Conditions **D.1.23** and **D.1.34** by:

Change 17:

Conditions D.1.12 and D.1.14 have been revised as follows:

D.1.12 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the **asphalt production** ~~woodworking~~ operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.1.15 Cyclone Inspections

An inspection shall be performed each calendar quarter of all cyclones controlling the **asphalt production** ~~woodworking~~ operation when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

Change 18:

Condition D.1.16 (c)(1) is the record keeping for the parametric monitoring of Condition D.1.11 which required once per shift compliance monitoring. Therefore, Condition D.1.16 (c)(1) has been revised as follows:

D.1.16 Record Keeping Requirements

- (c) To document compliance with Condition D.1.11, the Permittee shall maintain the following:
 - (1) ~~Weekly R~~ecords of the following operational parameters during normal operation when venting to the atmosphere **once per shift**:

Indiana Department of Environmental Management
Office of Air Quality
and Gary Air and Land Pollution Control

Technical Support Document (TSD)
for a Federally Enforceable State Operating Permit (FESOP)

Source Background and Description

Source Name:	Bucko Construction Company, Inc.
Source Location:	890 Chase Street, Gary, Indiana 46404
County:	Lake
SIC Code:	2951
Operation Permit No.:	F 089-11341-00103
Permit Reviewer:	Frank P. Castelli

The Office of Air Quality (OAQ) has reviewed a FESOP application from Bucko Construction Company, Inc. relating to the operation of a stationary hot mix asphalt production source.

Permitted Emission Units and Pollution Control Equipment

There are no permitted facilities operating at this source during this review process.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted facilities/units:

- (a) One (1) dryer, known as EU#1, equipped with a cyclone and baghouse connected in series for particulate matter control, exhausted to Stack #1, installed in 1967, baghouse replaced in 1995, capacity: 275 tons per hour.
- (b) One (1) natural gas-fired dryer burner with No. 2, No. 4, and No. 5 fuel oil for backup, known as EU#1, equipped with a cyclone and baghouse connected in series for particulate matter control, exhausted to Stack #1, installed in 1967, replaced in 1995, rated at 150 million British thermal units per hour.
- (c) One (1) batch mixer, known as EU#1, equipped with a cyclone and baghouse connected in series for particulate matter control, exhausted to Stack #1, installed in 1967, baghouse replaced in 1995, capacity: 6,500 pounds per batch.
- (d) Four (4) cold aggregate bins, installed in 1967, capacity: 60 tons of aggregate per bin each.
- (e) One (1) natural gas-fired hot oil heater, installed in 1990, rated at 1.7 million British thermal units per hour.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

There are no new facilities proposed at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (b) Combustion source flame safety purging on startup.
- (c) The following VOC and HAP storage containers: vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (d) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (e) Closed loop heating and cooling systems.
- (f) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (g) On-site fire and emergency response training approved by the department.
- (h) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (i) Three (3) storage tanks, installed in 1967, capacity: 30,000, 20,000, and 20,000 gallons of asphaltic cement, respectively.
- (j) One (1) storage tank, installed in 1967, capacity: 15,000 gallons of fuel oil.
- (k) One (1) product storage silo, capacity: 100 tons.
- (l) Reclaimed asphalt pavement crushing operation, maximum 100 tons per hour.

Existing Approvals

There are no existing approvals issued to this source.

Enforcement Issue

- (a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment*.
- (b) IDEM is aware that the source was not issued a FESOP by December 14, 1996 nor did they submit a Part 70 application by that date.
- (c) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the operation permit rules.

Recommendation

The staff recommends to the Commissioner that the FESOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP application for the purposes of this review was received on September 15, 1999. Additional information was received on February 21, 2000 and December 27, 2000.

There was no notice of completeness letter was mailed to the source.

Emission Calculations

See pages 1 through 11 of Appendix A of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	38,825
PM ₁₀	5,517
SO ₂	84.1
VOC	3.83
CO	54.7
NO _x	204

Note: For the purpose of determining Title V applicability for particulates, PM₁₀, not PM, is the regulated pollutant in consideration.

HAPs	Potential To Emit (tons/year)
Total HAPs	6.99

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) NO_x is equal to or greater than twenty-five (25) tons per year and the potential to emit PM₁₀ is greater than one hundred (100) tons per year in Lake county. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

- (c) This source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1996 OAQ emission data. Note the 1998 OAQ emission data reports zero (0) tons per year for all criteria pollutants.

Pollutant	Actual Emissions (tons/year)
PM	40.9
PM ₁₀	8.51
SO ₂	14.2
VOC	2.27
CO	3.02
NO _x	6.28

No previous HAPs emission data have been received from the source.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Federally Enforceable State Operating Permit.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Dyer/Mixer Combustion & Process	8.91	1.26	19.4	0.702	10.7	<24.27	1.61
Hot Oil Heater	0.014	0.055	0.004	0.040	0.613	0.730	0.00
Conveying	0.759	0.076	0.000	0.000	0.000	0.000	0.00
Screening	8.63	0.863	0.000	0.000	0.000	0.000	0.00
Unpaved Roads	22.3	4.55	0.000	0.000	0.000	0.000	0.00

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM₁₀	SO₂	VOC	CO	NO_x	HAPs
Storage	0.354	0.124	0.000	0.000	0.000	0.000	0.00
Insignificant Activities	3.21	3.21	0.000	0.250	0.000	0.000	0.25
Total Emissions	44.2	10.1	19.4	0.992	11.3	<25	Single <10 Total <25

- Note: (1) The potential to emit values in the spreadsheets in Appendix A after controls have been reduced by a ratio of the NO_x emission limit of 24.3 tons per year over the potential to emit of each fuel to indicate the limited potential to emit after controls of each regulated pollutant from combustion. The worst case ratioed limited potential to emit is listed in the above table. In addition, the process emissions from the dryer/mixer have also been reduced by the ratio of 24.27/105.1 which represents the maximum production with the least limited fuel. All other operations except the hot oil heater have all been accordingly reduced by the same ratio, 24.27/105.1.
- (2) The applicant has accepted a fuel limit of 1,032,800 gallons of No. 5 fuel oil per year which is equivalent to an NO_x limit of less than 24.27 tons per year (see page 10 of 11 of Appendix A). The full NO_x potential emission rate of 0.730 tons per year from the hot oil heater has been assumed in computing this limit (see page 1 of 11 of Appendix A). For purpose of this dryer/burner fuel limit, each 1 million cubic feet of natural gas burned is equivalent to 4,042.553 gallons of No. 5 fuel. Each gallon of No. 2 or No. 4 fuel oil burned is equivalent to 0.510638 gallons of No. 5 fuel oil.

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM ₁₀	Nonattainment
SO ₂	Nonattainment
NO ₂	Attainment
Ozone	Severe nonattainment
CO	Maintenance
Lead	Attainment

Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as severe nonattainment for ozone.

Federal Rule Applicability

- (a) The hot mix batch/drum asphalt manufacturing source is not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.90, Subpart I) because although the plant was modified in 1995 which is after the June 11, 1973 applicability date of this subpart, the cost of the installation of the new burner for the dryer and baghouse was only fifteen (15%) of the total cost of the plant. The dryer burner was completely replaced during this modification and No. 5 fuel oil can now be used as a backup fuel, which increased potential NO_x emissions.
- (b) Three (3) liquid asphalt storage tanks, installed in 1967, capacity: 30,000, 20,000 and 20,000 gallons of asphaltic cement, respectively, and the one (1) fuel oil storage tank, installed in 1967, capacity: 15,000 gallons of fuel oil are not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb) since they were all constructed in 1967 before the July 23, 1984 applicability date of this rule. These storage tanks are also not subject to the New Source Performance Standards, Subpart K or Subpart Ka since they were all constructed in 1967 before the applicability dates of these rules and their individual capacities are all less than 40,000 gallons.
- (c) When the stationary asphalt plant is using RAP, the asphalt plant is subject to the New Source Performance Standard 326 IAC 12, 40 CFR 60.670 through 60.676, Subpart OOO. This rule requires the particulate emissions from:
 - (1) the crushing operations to be limited to fifteen percent (15%) opacity or less, and
 - (2) the screening and conveying operations to be limited to ten percent (10%) or less.
- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-3 (Emission Offset)

NO_x emissions are limited to less than twenty-five (25) tons per year. Therefore, this source is not subject to the requirements of this rule.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of NO_x in Lake County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM₁₀, SO₂ and CO shall be limited to less than one hundred (100) tons per year and VOC and NO_x shall be limited to less than twenty-five (25) tons per year. The applicant has accepted a full limit to the dryer/burner of 1,032,800 gallons of No. 5 fuel oil per year which is equivalent to an NO_x limit of less than 24.27 tons per year (see page 10 of 11 of Appendix A). The full NO_x potential emission rate of 0.730 tons per year from the hot oil heater has

been assumed in computing this limit (see page 1 of 11 of Appendix A). For purposes of this dryer/burner fuel limit, each 1 MMCF of natural gas burned is equivalent to 4,042.553 gallons of No. 5 fuel and each gallon of No. 2 or No. 4 fuel oil burned is equivalent to 0.510638 gallons of No. 5 fuel. Compliance with this fuel limit also renders the requirement of 326 IAC 2-3 not applicable.

In addition, the amount of a single HAP shall be limited to less than ten (10) tons per year and the combination of all HAPs shall be limited to less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

326 IAC 5-1 (Opacity Limitations)

Since the source location of 890 Chase Street in Gary, Indiana, is included in the area defined under 326 IAC 5-1-1(c)(4), the source is subject to the opacity requirements of 326 IAC 5-1-2(B).

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-1-2 (Nonattainment area particulate limitations specified)

This rule requires that particulate matter emissions from asphalt concrete plants constructed on or prior to June 11, 1973 shall not exceed 0.10 grains per dry standard cubic foot, equivalent to 37.0 pounds per hour at a flow rate of 43,227 dry standard cubic feet per minute. Page 8 of 11 shows that the source complies with the 37.0 pounds per hour PM emission (162 tons per year).

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

This rule requires that the source not generate fugitive dust to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

326 IAC 6-1-11.1 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

- (a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
- (b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
- (c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).

- (d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.
- (e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (f) There shall be a zero (0) percent frequency of visible emission observations of a material during the in-plant transportation of material by truck or rail at any time.
- (g) The opacity of fugitive particulate emissions from the in-plant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
- (h) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
- (i) The PM_{10} emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (j) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (k) Any facility or operation not specified in 326 IAC 6-1-11.1(d) shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on September 15, 2000.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties)

Pursuant to 326 IAC 8-7-2(a), this source is exempt from the emission limit requirements of 326 IAC 8-7 because the potential VOC is less than twenty-five (25) tons per year.

State Rule Applicability - Individual Facilities

326 IAC 6-1-10.1 (Nonattainment area particulate limitations: Lake County PM_{10} emission requirements)

Pursuant to 326 IAC 6-1-10.1, the PM_{10} emissions from the dryer shall not exceed both 0.017 pounds per ton of asphalt produced, equivalent to 4.68 pounds of PM_{10} per hour, and 4.44 pounds of PM_{10} per hour. With the stated PM_{10} control efficiency of 99.9%, the hourly PM_{10} emission rate of 1.24 pounds per hour for this asphalt plant complies with this rule.

326 IAC 7-1.1-2 (Sulfur dioxide emission limitations)

- (a) The hot oil heater is not subject to the requirements of this rule since the potential sulfur dioxide emissions are less than ten (10) pounds per hour and twenty-five (25) tons per year.
- (b) Sulfur dioxide (SO_2) emissions from the 150.0 million British thermal units per hour dryer/burner shall be limited to 0.5 pounds per million British thermal units heat input for Nos. 2 and 4 distillate oil consumption and 1.6 pounds per million British thermal units per hour for No. 5 oil consumption.
 - (1) Sulfur dioxide emissions from page 2 of 11 of Appendix A are 7.61 pounds per hour for dryer/mixer on No. 2 fuel oil. Therefore, 7.61 pounds of SO_2 per hour divided

by 150.0 million British thermal units per hour equals 0.05 pounds of SO₂ per million British thermal units. Therefore, the dryer/burner on No. 2 fuel oil complies with this rule.

- (2) Sulfur dioxide emissions from page 2 of 11 of Appendix A are 19.2 pounds per hour for dryer/mixer on No. 4 fuel oil. Therefore, 19.2 pounds of SO₂ per hour divided by 150.0 million British thermal units per hour equals 0.128 pounds of SO₂ per million British thermal units. Therefore, the dryer/burner on No. 4 fuel oil complies with this rule.
- (3) Sulfur dioxide emissions from page 2 of 11 of Appendix A are 19.2 pounds per hour for dryer/mixer on No. 5 fuel oil. Therefore, 19.2 pounds of SO₂ per hour divided by 150.0 million British thermal units per hour equals 0.128 pounds of SO₂ per million British thermal units. Therefore, the dryer/burner on No. 5 fuel oil complies with this rule.

326 IAC 7-4-11 (Lake County sulfur dioxide emission limitations)

Pursuant to 326 IAC 7-4-1.1(c)(4), sulfur dioxide emissions from the dryer/burner shall be limited to 0.07 pounds per ton of asphalt produced. As shown on page 11 of 11, all fuels comply with this rule since the source has accepted the following sulfur content limits. On Nos. 2, 4 and 5 fuel oil, the sulfur contents shall not exceed 0.05%S, 0.128%S and 0.123%S, respectively.

326 IAC 8-5-2 (Miscellaneous Operations: asphalt paving)

No person shall cause or allow the use of asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

- (a) penetrating prime coating
- (b) stockpile storage
- (c) application during the months of November, December, January, February and March

No oil distillate cut-back emulsified asphalt will be produced at this source.

State Rule Applicability - Insignificant Activities

326 IAC 8-4-3 (Petroleum liquid storage facilities)

The three (3) liquid asphalt storage tanks and the one (1) fuel oil storage tank are not subject to the requirement of this rule because their capacities are each less than the applicability threshold of 39,000 gallons.

326 IAC 8-9 (Volatile organic liquid storage vessels)

Pursuant 326 IAC 8-9-1(b), the four (4) storage tanks with capacities of less than 39,000 gallons each, are subject to the record keeping and reporting requirements of 326 IAC 8-9-6(a) and (b) as follows:

- (a) The owner or operator of each vessel subject to this rule shall keep all records required by this section for three (3) years unless specified otherwise. Records required by subsection (b) shall be maintained for the life of the vessel.

- (b) The owner or operator of each vessel shall maintain a record and submit to the department a report containing the following information for each vessel:
 - (1) The vessel identification number.
 - (2) The vessel dimensions.
 - (3) The vessel capacity.

Testing Requirements

PM and PM₁₀ testing is required for the dryer, known as EU#1, equipped with a cyclone and baghouse connected in series for particulate matter control, exhausted to Stack #1 in order to assure compliance with 326 IAC 6-1-2(c) and 326 IAC 2-2 for PM as well as 326 IAC 2-2 and 326 IAC 6-1-10 for PM₁₀.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

The aggregate dry/burner has applicable compliance monitoring conditions as specified below:

- (a) The total static pressure drop across the baghouse must be measured and recorded once per shift. The pressure drop for the unit shall be maintained within the range of 3 and 5 inches of water. If the pressure drop is outside this range for more than two consecutive readings, corrective action shall be taken in accordance with the Preventive Maintenance Plan.
- (b) Visible emissions notations of the dryer/mixer Stack #1 exhaust shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and

characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

- (c) The permittee shall perform an inspection each calendar quarter of all bags controlling the dryer/mixer operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.
- (d) The Permittee shall perform an inspection each calendar quarter of the cyclone controlling the dryer/mixer operations when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

These monitoring conditions are necessary because the cyclone and baghouse connected in series for the aggregate dryer/burner must operate properly to ensure compliance with 326 IAC 12, 326 IAC 6-1-2(c), 326 IAC 2-3, 326, 326 IAC 5-1, 326 IAC 6-1-10 and 326 IAC 2-8 (FESOP).

Conclusion

The operation of this stationary hot mix batch asphalt production source shall be subject to the conditions of the attached proposed FESOP No.: F 089-11341-00103.

Appendix A: Emission Calculations

Company Name: Bucko Construction Company, Inc.
Plant Location: 890 Chase Street, Gary, Indiana 46404
County: Lake
FESOP: F 089-11341
Plt. ID: 089-00103
Date: September 15, 1999
Permit Reviewer: Frank P. Castelli

I. Potential Emissions

A. Source emissions before controls

Hot Oil Heater on Oil (oil/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by #2 & #1 distillate fuel oil @ 0.5 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>0.000 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/1000 gal) = (tons/yr)</u>
	<u>140000.0 Btu/gal * 2000 lbs/ton</u>	
P M:	2.0 lbs/1000 gal =	<u>0.000 tons/yr</u>
PM-10	3.3 lbs/1000 gal =	<u>0.000 tons/yr</u>
S O x:	71.0 lbs/1000 gal =	<u>0.000 tons/yr</u>
N O x:	20.0 lbs/1000 gal =	<u>0.000 tons/yr</u>
V O C:	0.34 lbs/1000 gal =	<u>0.000 tons/yr</u>
C O:	5.0 lbs/1000 gal =	<u>0.000 tons/yr</u>

Hot Oil Heater on Gas (gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>1.700 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/MMcf) = (tons/yr)</u>
	<u>1020 Btu/cf * 2000 lbs/ton</u>	
P M:	1.9 lbs/MMcf =	<u>0.014 tons/yr</u>
P M-10:	7.6 lbs/MMcf =	<u>0.055 tons/yr</u>
S O x:	0.6 lbs/MMcf =	<u>0.004 tons/yr</u>
N O x:	100.0 lbs/MMcf =	<u>0.730 tons/yr</u>
V O C:	5.5 lbs/MMcf =	<u>0.040 tons/yr</u>
C O:	84.0 lbs/MMcf =	<u>0.613 tons/yr</u>

Dryer Burner (gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>0.000 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/MMcf) = (tons/yr)</u>
	<u>1020 Btu/cf * 2000 lbs/ton</u>	
P M:	1.9 lbs/MMcf =	<u>0.0000 tons/yr</u>
P M-10:	7.6 lbs/MMcf =	<u>0.000 tons/yr</u>
S O x:	0.6 lbs/MMcf =	<u>0.000 tons/yr</u>
N O x:	100.0 lbs/MMcf =	<u>0.0000 tons/yr</u>
V O C:	5.5 lbs/MMcf =	<u>0.000 tons/yr</u>
C O:	84.0 lbs/MMcf =	<u>0.000 tons/yr</u>

Dryer Burner (gas/>100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	150.000 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) (tons/yr)
	1020 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>1.224</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>4.895</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.386</u> tons/yr
N O x:	190.0 lbs/MMcf =	<u>122.38</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>3.543</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>54.106</u> tons/yr

Post NSPS

Dryer Burner (gas/>100MMBTU/low nox)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3 (low NOx burner = 140, flue gas recirculation = 100)

Pollutant:	0.000 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) (tons/yr)
	1020 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.000</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>0.000</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.000</u> tons/yr
N O x:	140.0 lbs/MMcf =	<u>0.000</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>0.000</u> tons/yr
C O:	84.0 lb/MMcf =	<u>0.000</u> tons/yr

Dryer Burner (#2 & #1 oil >100 MMBTU)

The following calculations determine the amount of emissions created by #2 & #1 distillate fuel oil @ **0.05** % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	150.0 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	140000.0 Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>9.386</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>15.486</u> tons/yr
S O x:	7.10 lbs/1000 gal =	<u>33.319</u> tons/yr
N O x:	24.0 lbs/1000 gal =	<u>112.629</u> tons/yr
V O C:	0.20 lbs/1000 gal =	<u>0.939</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>23.464</u> tons/yr

(#4 oil/ <100MMBTU)**Dryer Burner**

The following calculations determine the amount of emissions created by #4 distillate fuel oil @ **0.5** % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	0.000 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	138000.0 Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>0.000</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	71.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	20.0 lbs/1000 gal =	<u>0.000</u> tons/yr
V O C:	0.34 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>0.000</u> tons/yr

(#4 oil/ >100MMBTU)**Dryer Burner**

The following calculations determine the amount of emissions created by #4 distillate
 fuel oil @ 0.128 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>150.0</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<u>150000.0</u> Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>8.760</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>14.454</u> tons/yr
S O x:	19.2 lbs/1000 gal =	<u>84.096</u> tons/yr
N O x:	24.0 lbs/1000 gal =	<u>105.120</u> tons/yr
V O C:	0.20 lbs/1000 gal =	<u>0.876</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>21.900</u> tons/yr

(#5 oil/ >100MMBTU)**Dryer Burner**

The following calculations determine the amount of emissions created by waste
 fuel oil @ 0.123 % sulfur, based on 8760 hours of use and AP-42, Chapter 1.11

Pollutant:	<u>150.0</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)	0.000	% Ash
	<u>151000.0</u> Btu/gal * 2000 lbs/ton		0.000	% Lead
P M:	10.0 lbs/1000 gal =	<u>43.510</u> tons/yr		
P M-10:	11.5 lbs/1000 gal =	<u>50.036</u> tons/yr		
S O x:	19.3 lbs/1000 gal =	<u>84.022</u> tons/yr		
N O x:	47.0 lbs/1000 gal =	<u>204.497</u> tons/yr		
VOC	0.28 lbs/1000 gal =	<u>1.218</u> tons/yr		
C O:	5.0 lbs/1000 gal =	<u>21.755</u> tons/yr		
Pb:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr		

(waste oil/atomizing burner)

The following calculations determine the amount of emissions created by waste
 fuel oil @ 0.500 % sulfur, based on 8760 hours of use and AP-42 Chapter 1.11

Pollutant:	<u>0.000</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)	0.000	% Ash
	<u>0.000</u> Btu/gal * 2000 lbs/ton		0.000	% Lead
P M:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr		
P M-10:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr		
S O x:	53.5 lbs/1000 gal =	<u>0.000</u> tons/yr		
N O x:	16.0 lbs/1000 gal =	<u>0.000</u> tons/yr		
VOC	1.0 lbs/1000 gal =	<u>0.000</u> tons/yr		
C O:	2.10 lbs/1000 gal =	<u>0.000</u> tons/yr		
Pb:	0.00 lbs/1000 gal =	<u>0.000</u> tons/yr		

*** * aggregate drying: drum-mix plant * ***

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and EPA SCC #3-05-002-05:

P M:	19 lbs/ton x	<u>0.0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u> tons/yr
		2000	lbs/ton		
P M-10:	4.4 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u> tons/yr
		2000	lbs/ton		
Lead:	3.30000000E-06 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u> tons/yr
		2000	lbs/ton		
HAPs:	0.0058 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u> tons/yr
		2000	lbs/ton		

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

*** * aggregate drying: batch-mix plant * ***

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and EPA SCC #3-05-002-05:

P M:	32 lbs/ton x	<u>275.0</u>	tons/hr x	8760 hrs/yr =	<u>38544.0</u> tons/yr
		2000	lbs/ton		
P M-10:	4.5 lbs/ton x	<u>275</u>	tons/hr x	8760 hrs/yr =	<u>5420.3</u> tons/yr
		2000	lbs/ton		
Lead:	3.30000000E-06 lbs/ton x	<u>275</u>	tons/hr x	8760 hrs/yr =	<u>0.004</u> tons/yr
		2000	lbs/ton		
HAPs:	0.0058 lbs/ton x	<u>275</u>	tons/hr x	8760 hrs/yr =	<u>6.986</u> tons/yr
		2000	lbs/ton		

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

*** * conveying / handling * ***

The following calculations determine the amount of emissions created by material handling of aggregate, based on 8760 hours of use and AP-42, Ch 11.19.2

$$E_f = .0032 * \frac{(U/5)^{1.3} * k}{(M/2)^{1.4}}$$

where k= 1 (particle size multiplier)
U = 12 mph mean wind speed (worst case)
M = 5.0 % moisture

0.002769 lbs/ton

P M :	<u>0.003</u> lbs/ton x	<u>270.875</u> tons/hr x	8760 hrs/yr =	<u>3.285</u> tons/yr	
		2000 lbs/ton			
P M-10:	10% of PM =			<u>0.329</u> tons/yr	
Screening	PM: <u>270.875</u> tons/hr x	0.0315 lbs/ton	/ 2000 lbs/ton x	8760 hrs/yr =	<u>37.373</u> tons/yr
	P M-10: 10% of PM =			<u>3.737</u> tons/yr	AP-42 Ch.11.19.2

**** unpaved roads ****

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

A. Tri-axle Truck and Semi Trailers

13.8 trips/hr x			
0.03 miles/roundtrip x			
8760 hrs/yr =		3613.5 miles per year	
For PM	For PM-10		
E _f = {k*[(s/12) ^{0.8}]*[(W/3) ^b]/[(Mdry/0.2) ^c]*[(365-p)/365]}			
=		1.95 lb/mile	
9.30	where k =	2.6	(particle size multiplier for PM-10) (k=10 for PM-30 or TSP)
10	s =	4.8	mean % silt content of unpaved roads
4.8	b =	0.4	Constant for PM-10 (b = 0.5 for PM-30 or TSP)
0.5	c =	0.3	Constant for PM-10 (c = 0.4 for PM-30 or TSP)
0.4	W =	26	tons average vehicle weight
26	Mdry =	0.2	surface material moisture content, % (default is 0.2 for dry conditions)
0.2	p =	125	number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)
125			
9.30 lb/mi x		3613.5 mi/yr =	PM 16.80 tons/yr
		2000 lb/ton	
1.95 lb/mi x		3613.5 mi/yr =	PM-10 3.52 tons/yr
		2000 lb/ton	

B. Front End Loader

34.4 trips/hr x			
0.110 miles/roundtrip x			
8760 hrs/yr =		33123.8 miles per year	
For PM	For PM-10		
E _f = {k*[(s/12) ^{0.8}]*[(W/3) ^b]/[(Mdry/0.2) ^c]*[(365-p)/365]}			
=		2.17 lb/mile	
10.64	where k =	2.6	(particle size multiplier for PM-10) (k=10 for PM-30 or TSP)
10	s =	4.8	mean % silt content of unpaved roads
4.8	b =	0.4	Constant for PM-10 (b = 0.5 for PM-30 or TSP)
0.5	c =	0.3	Constant for PM-10 (c = 0.4 for PM-30 or TSP)
0.4	W =	34	tons average vehicle weight
34	Mdry =	0.2	surface material moisture content, % (default is 0.2 for dry conditions)
0.2	p =	125	number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)
125			
10.64 lb/mi x		33123.75 mi/yr =	PM 176.14 tons/yr
		2000 lb/ton	
2.17 lb/mi x		33123.75 mi/yr =	PM-10 35.92 tons/yr
		2000 lb/ton	

C. Semi Truck

<u>0.0</u> trips/hr x					
<u>0.0</u> miles/roundtrip x					
8760 hrs/yr =				<u>0.0</u> miles per year	
For PM		For PM-10			
	$E_f = \{k * [(s/12)^{0.8}] * [(W/3)^a] / [(M_{dry}/0.2)^c] * [(365-p)/365]\}$				
11.24	=	2.27	lb/mile		
10	where k =	2.6	(particle size multiplier for PM-10) (k=10 for PM-30 or TSP)		
4.8	s =	4.8	mean % silt content of unpaved roads		
0.5	b =	0.4	Constant for PM-10 (b = 0.5 for PM-30 or TSP)		
0.4	c =	0.3	Constant for PM-10 (c = 0.4 for PM-30 or TSP)		
38	W =	38	tons average vehicle weight		
0.2	Mdry =	0.2	surface material moisture content, % (default is 0.2 for dry conditions)		
125	p =	125	number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)		
11.24 lb/mi x		0 mi/yr =		PM	<u>0.00</u> tons/yr
		2000 lb/ton			
2.27 lb/mi x		0 mi/yr =		PM-10	<u>0.00</u> tons/yr
		2000 lb/ton			
All Trucking	Total PM:	<u>192.94</u>	tons/yr		
	Total PM-10:	<u>39.44</u>	tons/yr		

* * storage * *

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8760 hours of use and AP-42, Ch 11.2.3.

$E_f = 1.7 * (s/1.5) * (365-p) / 235 * (f/15)$	
=	1.39 lbs/acre/day for sand
=	1.04 lbs/acre/day for stone
=	1.74 lbs/acre/day for slag
=	1.16 lbs/acre/day for gravel
=	1.62 lbs/acre/day for RAP
where s =	1.2 % silt for sand
s =	0.9 % silt of stone
s =	1.5 % silt of slag
s =	1.0 % silt of gravel
s =	1.4 % silt for RAP
p =	125 days of rain greater than or equal to 0.01 inches
f =	15 % of wind greater than or equal to 12 mph
$E_p \text{ (storage)} = E_f * sc * (20 \text{ cuft/ton}) * (365 \text{ days/yr})$	
$(2000 \text{ lbs/ton}) * (43560 \text{ sqft/acre}) * (25 \text{ ft})$	
=	0.183 tons/yr for sand
=	0.000 tons/yr for stone
=	0.418 tons/yr for slag
=	0.000 tons/yr for gravel
=	0.106 tons/yr for RAP
Total PM:	<u>0.707</u> tons/yr
where sc =	<u>39.20</u> ,000 tons storage capacity for sand
sc =	<u>0.00</u> ,000 tons storage capacity for stone
sc =	<u>71.87</u> ,000 tons storage capacity for slag
sc =	<u>0.00</u> ,000 tons storage capacity for gravel
sc =	<u>19.60</u> ,000 tons storage capacity for RAP

Slag and stone combined

P M-10:	35% of PM =	0.064 tons/yr for sand
	35% of PM =	0.000 tons/yr for stone
	35% of PM =	0.146 tons/yr for slag
	35% of PM =	0.000 tons/yr for gravel
	35% of PM =	0.037 tons/yr for RAP
Total PM-10:		0.248 tons/yr

Emissions before controls (combustion plus production) are as follows:

natural gas		#2 oil		#4 oil	Plus Hot Oil Heater on #2	#5 oil	
P M:	38780 tons/yr	P M:	38787.7 tons/yr	P M:	38787.067 tons/yr	P M:	38821.817 tons/yr
P M-10:	5469 tons/yr	P M-10:	5479.5 tons/yr	P M-10:	5464.008 tons/yr	P M-10:	5514.045 tons/yr
S O x:	0.391 tons/yr	S O x:	33.3 tons/yr	S O x:	84.096 tons/yr	S O x:	84.022 tons/yr
N O x:	123.1 tons/yr	N O x:	112.6 tons/yr	N O x:	105.120 tons/yr	N O x:	204.497 tons/yr
V O C:	3.583 tons/yr	V O C:	0.939 tons/yr	V O C:	0.876 tons/yr	V O C:	1.218 tons/yr
C O:	54.7 tons/yr	C O:	23.5 tons/yr	C O:	21.900 tons/yr	C O:	21.755 tons/yr
Lead:	0.004 tons/yr	Lead:	0.004 tons/yr	Lead:	0.004 tons/yr	Lead:	0.004 tons/yr
HAPs:	6.99 tons/yr	HAPs:	6.99 tons/yr	HAPs:	6.986 tons/yr	HAPs:	6.986 tons/yr

B. Source emissions after controls

dryer combustion: gas

P M:	1.22 tons/yr x	0.00100 emitted after controls =	0.001 tons/yr
P M-10:	4.90 tons/yr x	0.00100 emitted after controls =	0.005 tons/yr

dryer combustion: #2 oil

P M:	9.39 tons/yr x	0.00100 emitted after controls =	0.009 tons/yr
P M-10:	15.49 tons/yr x	0.00100 emitted after controls =	0.015 tons/yr

hot oil heater combustion: gas

P M:	0.014 tons/yr x	1.00000 emitted after controls =	0.014 tons/yr
P M-10:	0.055 tons/yr x	1.00000 emitted after controls =	0.055 tons/yr

hot oil heater combustion: #2 oil

P M:	0.000 tons/yr x	1.00000 emitted after controls =	0.000 tons/yr
P M-10:	0.000 tons/yr x	1.00000 emitted after controls =	0.000 tons/yr

dryer combustion: #4 oil

P M:	8.76 tons/yr x	0.00100 emitted after controls =	0.009 tons/yr
P M-10:	14.45 tons/yr x	0.00100 emitted after controls =	0.014 tons/yr

dryer combustion: #5 oil

P M:	43.51 tons/yr x	0.00100 emitted after controls =	0.044 tons/yr
P M-10:	50.04 tons/yr x	0.00100 emitted after controls =	0.050 tons/yr

aggregate drying:

P M:	38544.00 tons/yr x	0.00100 emitted after controls =	38.544 tons/yr
P M-10:	5420.25 tons/yr x	0.00100 emitted after controls =	5.420 tons/yr

conveying/handling:

P M:	3.29 tons/yr x	1.000 emitted after controls =	3.285 tons/yr
P M-10:	0.33 tons/yr x	1.000 emitted after controls =	0.329 tons/yr

screening

P M:	37.37 tons/yr x	<u>1.000</u> emitted after controls =	<u>37.373</u> tons/yr
P M-10:	3.74 tons/yr x	<u>1.000</u> emitted after controls =	<u>3.737</u> tons/yr

unpaved roads:

P M:	192.94 tons/yr x	50.00% emitted after controls =	<u>96.471</u> tons/yr
P M-10:	39.44 tons/yr x	50.00% emitted after controls =	<u>19.722</u> tons/yr

storage:

P M:	0.707 tons/yr x	50.00% emitted after controls =	<u>0.354</u> tons/yr
P M-10:	0.248 tons/yr x	50.00% emitted after controls =	<u>0.124</u> tons/yr

Emissions after controls (combustion plus production) are as follows:

	Gas	#2 Oil	#4 Oil	#5 Oil	
P M:	<u>176.0</u>	<u>176.0</u>	<u>176.035</u>	<u>176.070</u>	tons/yr
P M-10:	<u>29.4</u>	<u>29.3</u>	<u>29.347</u>	<u>29.382</u>	tons/yr

II. Allowable Emissions

A. The following calculations determine compliance with 326 IAC 6-1-2(c), which limits stack emissions from asphalt plants to 0.10 gr/dscf:

$$\begin{aligned}
 & 0.10 \frac{\text{grains}}{\text{dscf}} \times \frac{82892.000 \text{ acfm}}{460} \times \frac{528}{460 + 350} \times \frac{100}{100 - 20} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times \frac{525600 \text{ minutes}}{\text{year}} \times \frac{1}{7000 \text{ grains}} = 162.3 \text{ tons/yr} \\
 & \text{To meet 326 IAC 6-1-2(c), the following value must be } < \text{ amount calculated above} \quad \underline{38.6 \text{ tons/yr}}
 \end{aligned}$$

B. The following calculations determine the maximum sulfur content of distillate #2 fuel oil allowable by 326 IAC 7:

$$\begin{aligned}
 & \text{limit: } 0.5 \text{ lbs/MMBtu} \\
 & 0.5 \text{ lbs/MMBtu} \times \frac{140000.0 \text{ Btu/gal}}{70 \text{ lbs/1000gal}} = \frac{70.0 \text{ lbs/1000gal}}{0.493} \\
 & \text{Sulfur content must be less than or equal to } \underline{0.493} \% \text{ to comply with 326 IAC 7}
 \end{aligned}$$

C. The following calculations determine the maximum sulfur content of #5 fuel oil allowable by 326-IAC 7:

$$\begin{aligned}
 & \text{limit: } 1.6 \text{ lbs/MMBtu} \\
 & 1.6 \text{ lbs/MMBtu} \times \frac{151000.000 \text{ Btu/gal}}{241.6 \text{ lbs/1000gal}} = \frac{241.6 \text{ lbs/1000gal}}{1.539} \\
 & \text{Sulfur content must be less than or equal to } \underline{1.539} \% \text{ to comply with 326 IAC 7}
 \end{aligned}$$

D. The following calculations determine the maximum sulfur content of distillate #4 fuel oil allowable by 326-IAC 7:

limit:	0.5 lbs/MMBtu		
	0.5 lbs/MMBtu x	<u>150000.000</u> Btu/gal=	75 lbs/1000gal
	75 lbs/1000gal /	<u>150.0</u> lbs/1000 gal =	<u>0.500</u>
Sulfur content must be less than or equal to		<u>0.500</u> % to comply with 326 IAC 7	

III. Limited Potential Emissions

FUEL USAGE LIMITATION: BASED ON NOx

FUEL USAGE LIMITATION FOR HOT OIL HEATER ALONE (OIL)

0.00 <u>tons NOx</u> year	*	2000 <u>lbs</u> ton	=	0.00 <u>lbs NOx</u> year
0 <u>lbs NOx</u> year	/	20 <u>lbs NOx</u> kgal	=	0.00 <u>kgal</u> year
0.00 <u>kgal</u> year	*	100.00 <u>tons/year</u> 0 tons/year	=	0.0 <u>gal fuel</u> year

FUEL USAGE LIMITATION FOR BURNER & HEATER (Gas)

123.11 <u>tons NOx</u> year	*	2000 <u>lbs</u> ton	=	246225 <u>lbs NOx</u> year
246225 <u>lbs NOx</u> year	/	190.0 <u>lbs NOx</u> MMcf	=	1295.92 <u>MMcf</u> year
1295.92 <u>MMcf</u> year	*	<u>24.27</u> tons/yr 123.11 tons/yr	=	255.5 <u>MMcf</u> year FESOP Limit

FUEL USAGE LIMITATION FOR BURNER & HEATER (#2 Oil)

112.63 <u>tons NOx</u> year	*	2000 <u>lbs</u> ton	=	225257.14 <u>lbs NOx</u> year
225257.14 <u>lbs NOx</u> year	/	24 <u>lbs</u> 1000 gal	=	9385.71 <u>kgal</u> year
9385.71 <u>kgal</u> year	*	<u>24.27</u> tons/yr 112.63 tons/yr	=	2022.5 <u>kgal</u> year FESOP Limit

FUEL USAGE LIMITATION FOR BURNER (#4 Oil)

$$\begin{array}{rclclcl}
 105.12 \frac{\text{tons NOx}}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 210240.00 \frac{\text{lbs NOx}}{\text{year}} \\
 210240.00 \frac{\text{lbs NOx}}{\text{year}} & / & 24.0 \frac{\text{lbs}}{1000 \text{ gal}} & = & 8760.00 \frac{\text{kgal}}{\text{year}} \\
 8760.00 \frac{\text{kgal}}{\text{year}} & * & \frac{24.27 \text{ tons/yr}}{105.12 \text{ tons/yr}} & = & 2022.5 \frac{\text{kgal}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (#5 Oil)

$$\begin{array}{rclclcl}
 204.50 \frac{\text{tons NOx}}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 408993.38 \frac{\text{lbs NOx}}{\text{year}} \\
 408993.38 \frac{\text{lbs NOx}}{\text{year}} & / & 47.0 \frac{\text{lbs}}{1000 \text{ gal}} & = & 8701.99 \frac{\text{kgal}}{\text{year}} \\
 8701.99 \frac{\text{kgal}}{\text{year}} & * & \frac{24.27 \text{ tons/yr}}{204.50 \text{ tons/yr}} & = & 1032.8 \frac{\text{kgal}}{\text{year}} \text{ FESOP Limit Controlling Case}
 \end{array}$$

FUEL USAGE LIMITATION: BASED ON SO2

FUEL USAGE LIMITATION FOR HOT OIL HEATER ON OIL

$$\begin{array}{rclclcl}
 0.00 \frac{\text{tons SO2}}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 0 \frac{\text{lbs SO2}}{\text{year}} \\
 0 \frac{\text{lbs SO2}}{\text{year}} & / & 70.0 \frac{\text{lbs SO2}}{\text{kgal}} & = & 0.00 \frac{\text{kgal}}{\text{year}} \\
 0 \frac{\text{kgal}}{\text{year}} & * & \frac{99.00 \text{ tons/year}}{0 \text{ tons/year}} & = & 0.0 \frac{\text{gal fuel}}{\text{year}}
 \end{array}$$

FUEL USAGE LIMITATION FOR BURNER AND HOT OIL HEATER (Gas)

$$\begin{array}{rclclcl}
 0.391 \frac{\text{tons SO2}}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 781.70 \frac{\text{lbs SO2}}{\text{year}} \\
 781.70 \frac{\text{lbs SO2}}{\text{year}} & / & 0.6 \frac{\text{lbs SO2}}{\text{MMcf}} & = & 1302.84 \frac{\text{MMcf}}{\text{year}} \\
 1302.84 \frac{\text{MMcf}}{\text{year}} & * & \frac{100.0 \text{ tons/yr}}{0.39 \text{ tons/yr}} & = & 0.0 \frac{\text{MMcf}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

FUEL USAGE LIMITATION FOR BURNER & HEATER (#2 Oil)

$$\begin{array}{rclclcl}
 \frac{33.3 \text{ tons SO}_2}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 66638.57 \frac{\text{lbs SO}_2}{\text{year}} \\
 \\
 \frac{66638.57 \text{ lbs SO}_2}{\text{year}} & / & 7.1 \frac{\text{lbs}}{1000 \text{ gal}} & = & 9385714.2857 \frac{\text{gal}}{\text{year}} \\
 \\
 9385714.29 \frac{\text{gal}}{\text{year}} & * & \frac{100.0 \text{ tons/yr}}{33.32 \text{ tons/yr}} & = & 0.0 \frac{\text{gal}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (#4 Oil)

$$\begin{array}{rclclcl}
 \frac{84.1 \text{ tons SO}_2}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 168192 \frac{\text{lbs SO}_2}{\text{year}} \\
 \\
 \frac{168192.00 \text{ lbs SO}_2}{\text{year}} & / & 19.2 \frac{\text{lbs}}{1000 \text{ gal}} & = & 8760000 \frac{\text{gal}}{\text{year}} \\
 \\
 8760000.00 \frac{\text{gal}}{\text{year}} & * & \frac{100.0 \text{ tons/yr}}{84.10 \text{ tons/yr}} & = & 0.0 \frac{\text{gal}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (#5 Oil)

$$\begin{array}{rclclcl}
 \frac{84.0 \text{ tons SO}_2}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 168044.07 \frac{\text{lbs SO}_2}{\text{year}} \\
 \\
 \frac{168044.07 \text{ lbs SO}_2}{\text{year}} & / & 19.3 \frac{\text{lbs}}{1000 \text{ gal}} & = & 8706946.44 \frac{\text{gal}}{\text{year}} \\
 \\
 8706946.44 \frac{\text{gal}}{\text{year}} & * & \frac{100.0 \text{ tons/yr}}{84.02 \text{ tons/yr}} & = & 0.0 \frac{\text{gal}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

$$\text{Insignificant Activity} \quad \text{RAP Crushing} \quad 100 \text{ tons/hr} \quad 0.00504 \text{ lbs/ton} \quad = \quad 2.20752 \text{ tons/year PM and PM-10}$$

Compliance with 326 IAC 7-4-1.1(c) for sulfur dioxide emission: SO₂ emission shall not exceed 0.07 lbs/tons of asphalt produced

Dryer on Natural Gas complies with this rule since 0.386 tons of SO₂/year = 0.00032 lbs of SO₂/ton of Asphalt produced

Dryer on No. 2 Oil complies with this rule since 33.3 tons of SO₂/year = 0.028 lbs of SO₂/ton of Asphalt produced

Dryer on No. 4 Oil complies with this rule since 84.1 tons of SO₂/year = 0.07 lbs of SO₂/ton of Asphalt produced

Dryer on No. 5 Oil complies with this rule since 84.0 tons of SO₂/year = 0.07 lbs of SO₂/ton of Asphalt produced

Method: Potential to emit * 2000 lbs/ton / 8,760 hrs/yr / 275 tons/ hr = lbs of SO₂ / ton of Asphalt produced

PM-10 allowable is 0.017 lbs/ton of asphalt, equivalent to 275 tons/hr * 0.017 lbs/ton = 4.675 lbs of PM-10/hr or 4.44 lbs of PM-10/hr pursuant to 326 IAC 6-1-10.1

With the stated 99.9% control efficiency, the potential PM-10 emissions after controls are 1.24 lbs/hr, equivalent to 5.42 tons/yr from pg 7 of 11.